

RESOURCE PACKET

Assessment of Deafness

and

Hearing Impairment



Introduction

The reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997 is the third major statutory reauthorization since PL 94-142 was first enacted in 1975. IDEA 2004 and its accompanying regulations are integrated documents that expand on and strengthen the requirements of earlier versions. Although many sections remain unchanged, greater emphasis has been placed on the participation and progress of children with disabilities in the general curriculum, disciplinary situations, state funding mechanisms, new provisions for parent and general education teacher participation, and Individual Education Program (IEP) team membership and content. The revised law calls for a more educationally relevant IEP; an IEP that is more responsive to educational context.

IDEA 2004 provides language that impacts the assessment and eligibility determination for all students who are suspected of having a disability. A child may not be determined to be eligible for special education or a child with a disability [Determination of Eligibility: §300.534 (b)(1)(i, ii)] if the determinant factor for that eligibility determination is:

- Lack of instruction in reading or math; or
- Limited English proficiency ; and
- The child does not otherwise meet the eligibility standards under §300.7(a).

IDEA 2004 addresses the evaluation and assessment of all students [Determination of Needed Evaluation Data §300.533(a)(a)(i-iii)] in requiring the assessment and alignment of core curriculum using research-based instructional strategies that are student focused. This would include review of existing evaluation data on the child, including:

- Evaluations and information provided by the parents of the child;
- Current classroom-based assessments and observations; and
- Observations by teachers and related services providers

Federal and state special education laws and regulations mandate that public school systems evaluate and, when appropriate, provide special education services to children whose educational performance is adversely affected by the identified disability(s). The Individuals with Disabilities Education Act includes hearing impairments that adversely affect educational performance as types of disabilities requiring special education and related services. If the student has difficulties that do not "adversely impact the child's educational performance" the student is not eligible for services under IDEA.

Regulations from IDEA 2004 specifically require IEP teams to address and document "adverse affects" of the identified disability in the child's general education curriculum. These regulations have made a significant impact in many school districts with the increased use and application of federal requirements of Section 504 of the Rehabilitation Act of 1973. Section 504 is a civil rights statute which provides that: "No otherwise qualified individual with handicaps in the United States...shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." (29 USC § 794) The provisions of Title II of the American Disabilities Act of 1990 (ADA) and Section 504 are similar in nature, although interpreted consistently. When a child meets IDEA/state standards for identification as hearing impaired, and "adverse affects" cannot be demonstrated, accommodations in the general education classroom should be developed through a Section 504 Plan by the Section 504 Review Committee.

Major emphasis was placed on the inclusion of all students with disabilities in the general education curriculum, including participation of all students in mandated statewide or district-wide assessments. IDEA'97 addressed these requirements [Participation in Assessments §300.138] in stating:

"The State must have on file with the Secretary information to demonstrate that—

- (a) Children with disabilities are included in general State and district-wide assessment programs, with appropriate accommodations and modifications in administration, if necessary;
- (b) As appropriate, the State or LEA -
 - (1) Develops guidelines for the participation of children with disabilities in alternate assessments for those children who cannot participate in State and district-wide assessment programs;
 - (2) Develops alternate assessments in accordance with paragraph (b)(1) of this section; and
 - (3) Beginning not later than, July 1, 2000, conducts the alternate assessments described in paragraph (b)(2) of this section."

Consequently, specific accommodations have been developed and, as research-based information becomes available, continue to be revised that can address this need for students with a hearing impairment. Significant progress has been made since the reauthorization of IDEA in 2004 for including students with hearing impairment in large-scale assessments mandated at both district and state levels. Although there continue to be barriers and issues regarding statewide assessment that have not yet been resolved for students with hearing impairment, the inclusion of all students in statewide assessments will continue to be an evolving process, with focus on equitable and fair assessment of all students. Legislation specific to the

assessment of students suspected of a hearing impairment is significant with this reauthorization.

However, IDEA also recognizes the special programmatic needs of children who are deaf and hearing impaired. Students who are hearing impaired have a right to communication centered programs, exposure to a critical mass of peers, language proficient staff, and opportunities for social and emotional development. Under “Development, Review, and Revision of IEP [§300.324 (a)(2)(i-v)–Consideration of Special Factors],” there are factors for consideration by all IEP Teams for any student with a disability, including:

(iv) Consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child’s language and communication needs, opportunities for direct communications with peers and professional personnel in the child’s language and communication mode, academic level, and full range of needs including opportunities for direct instruction in the child’s language and communication mode.

To fully understand the applicability of this section to the LRE issue for deaf and hard of hearing children, a review of the Federal Register, Vol. 64, No. 48 reveals the intent of this section. There it is stated that:

The Senate and House Committee Reports ...reinforce this principle in their statements that ‘the IEP team should implement the [new statutory] provision in a manner consistent with the policy guidance entitled, “Deaf Students Education Services.”’

Reference to the policy indicated above reveals the true intent of §300.346 for children who are deaf and hard of hearing:

“The Secretary recognizes that regular educational settings are appropriate and adaptable to meet the unique needs of particular children who are deaf. For others, a center or special school may be the least restrictive environment in which the child’s unique needs can be met.”

The intent of this document is to help teachers of students with hearing impairment and administrators of programs serving students with hearing impairment to operate within the school improvement process, therein supporting the spirit and intent of the reauthorization of the Individuals with Disabilities Education Act and regulations through quality practices. This document will support teachers of students with hearing impairment as they “align curriculum and assessment and use research-based instructional strategies that are student focused.” Other audiences for this document are special education administrators, school psychologists, parents, medical specialists, and other school staff.

Glossary of Terms

The terms below are defined as commonly used when discussing the education of students who are hearing impaired/deaf and are intended to assist in reading this document.

Acoustic Reflex Threshold – The lowest intensity at which stimulus can produce a contraction of one or both of the middle ear muscles.

Air Conduction – Auditory stimuli presented via earphones placed over each ear which is needed to assess the hearing status of the outer, middle, and inner ear.

Amplification – The increase in intensity of sound by electrical or mechanical means; used synonymously with hearing aid and auditory trainers.

Audiogram – A graph showing hearing threshold level as a function of frequency.

Audiologic Habilitation – Comprehensive process including developmental and restorative procedures in auditory language processing as well as the traditional aural rehabilitation programs of auditory training and speechreading instruction.

Audiologist – Person holding a Master's degree (or equivalent) in audiology and having American Speech Language and Hearing Association certification (CCC-A) who is responsible for identification, audiological evaluations, and management of persons with hearing impairments.

Audiometric Technician – Generally, lay individuals without a college degree who have undergone extensive on site, as well as classroom instruction in testing procedures under the supervision of an audiologist.

Aural/oral Method – Refers to the use of lip-reading and auditory information for communication, wholly excluding the use of any natural signs.

Bone Conduction – Auditory stimuli presented via mechanical vibrations of the bones of the skull, which are used to assess the status of the inner ear (sensorineural mechanism).

CCC-A – Abbreviation for “Certificate of Clinical Competence in Audiology.” Refers to the national certification for all audiologists given by the American Speech-Language and Hearing Association.

Calibration – The electroacoustic or biologic determination that an audiometer is performing properly in terms of its acoustic output, alternator linearity, frequency accuracy, harmonic distortion, etc.

Communication – The American Heritage Dictionary defines communication as “The exchange of thoughts, messages, or information as by speech signals, writing or behavior.” It is an umbrella term for specific forms of communication such as gestures, American Sign Language, English-based signs, spoken English, and written English as well as other languages of the world. Communication may take place without the use of a formal language, such as in the expression of thought or feeling through behavior.

Deaf – This term indicates a hearing loss so severe that processing of linguistic information through hearing alone, with or without hearing aids, is severely limited. Learning is not acquired primarily through the auditory channels, even with amplification, which necessitates extensive special instruction. Deaf students may demonstrate the ability to speak or speech read well in certain situations. In the adult community, the term Deaf does not connote nor describe the degree of hearing impairment but rather an affiliation with the community of people who are deaf and use American Sign Language (ASL) to communicate.

ENT (Otolaryngologist) – An abbreviation used for physicians who specialize in diseases of the Ear, Nose and Throat and is also often used when speaking of an otologist or otolaryngologist.

Fluctuating – To vary or to change from time to time.

Hard of Hearing – This term describes a degree of hearing loss that allows the student to process acoustic information necessary for auditory-verbal communication, with or without the assistance of hearing aids or assistive listening devices (ALD).

Hearing Impaired – A global term which includes both deaf and hard of hearing individuals and refers to any type or degree of hearing loss ranging from slight to profound. This term has been used by the medical community to describe a deviation in either auditory structure or auditory function, usually outside the range of normal hearing.

Hearing Loss – Hearing loss is sometimes classified by the amount of acuity loss measured audiometrically in decibels (dB). The following are commonly used categories. Note: decibel loss is not the same as a percentage of hearing loss. Average hearing ranges from 0-20 dB. The highest decibel level used when testing is 120dB.

The acuity loss indicated below for each category signifies the hearing loss in the frequencies most important for understanding speech. Important to note is that the decibel loss, while providing important information on the *potential* of the person's ability to wear hearing aids and use residual hearing, does not reliably predict the person's residual hearing potential. There are numerous individual factors that affect how well an individual may use his/her listening and speech-reading skills to communicate.

16-25 dB loss (slight)

May have difficulty with faint or distant speech. Loss of approximately 10% of the speech signal with the speaker more than three feet away and with background noise. Children with this loss may need mild sound field or personal amplification and may need speech and language services.

26-40 dB loss (mild)

May miss 40% to 50% of speech signal without amplification, depending upon background noise and distance from the speaker. High frequency consonants, crucial to speech understanding, may not be heard. Background noise may interfere with adequate reception of speech in the classroom unless FM systems are used. Increased stress in the learning environment may be evident. Special support services may be required for speech and language.

41-55 dB loss (moderate)

Without amplification much of the conversation in a classroom will be missed, even with face-to-face communication. Background noise may interfere with communication, even with amplification unless FM systems are used. There may be problems with limited vocabulary, written language, and speech articulation. Voice quality could also be affected. Stress in the learning environment may be a factor and spontaneous communications with others may be affected.

56-70 dB loss (moderately severe)

Without amplification a child with this loss could miss up to 100% of speech communication in the classroom. Full-time amplification will be essential and FM amplification will be crucial to the learning environment. Language may be delayed and written language may be defective. Resource support may be needed. Children with this degree of loss may need special help in language

skills, language based academic subjects, vocabulary, grammar, pragmatics, reading, and writing. Speech and hearing therapy will also be needed. Teachers will need in-service related to working with children with significant hearing loss.

71-90 dB loss (severe)

A child with this loss may or may not understand speech, even when near the speaker. Understanding of speech will depend on the onset, extent, and nature of the hearing loss. Speech skills may not develop spontaneously, if the loss is pre-lingual, and delays may be seen in all areas of language skills. A child with post-lingual loss may, over time, begin to have articulation problems and atonal voice quality. Stress in the learning environment may be evident. A child with this loss may need placement in a special program, oral/aural or total communication, and will need full-time amplification. If sign language is used an interpreter will be needed if in an “inclusive” environment. Support services will be needed for speech, language, and auditory training. Resource assistance may be necessary for assistance with academic subjects. Teachers will need in-service related to working with children with significant hearing loss.

>91 dB loss (profound)

Vision will most likely be the primary avenue for learning and communication. Amplification may not be of benefit, depending upon the age of onset, extent of loss, motivation, and consistency of training. Speech and language cannot be expected to develop spontaneously. If the hearing loss is post-lingual, speech articulation and voice quality can be expected to deteriorate quickly without intervention. A child with this loss may need placement in a special program, oral/aural or total communication. The use of amplification should be evaluated. Special assistance will be needed in all areas of language skills, academics, speech and auditory training. The student may need exposure to and association with deaf culture and identity with deaf peers. Counseling may be a necessary resource.

Language – Language is the structured form of communication agreed upon and commonly understood by a group of people. It is the expression of human communication through which knowledge, belief, and behavior can be experienced, explained, and shared. English language competency (literacy) is the goal for all students so that reading and writing is comparable with age level peers. Children who are deaf or hard of hearing develop language competency through various means including English and American Sign Language (ASL). ASL has a grammatical structure of its own that suites the brain in processing a visual rather than an auditory language. ASL and English each have their own syntax and grammar. Language is the formalized and commonly understood tool that humans use to communicate their feelings, ideas and thoughts.

Manual Method – Refers to the use of sign language and fingerspelling for communication.

Middle Ear Pathology – A disease of the air-filled cavity containing three small bones located behind the ear drum.

Mode / Modality – A communication mode or modality is a form of visual communication that is not in itself a language but a representation of a language. Examples of a communication mode or modality (other than speech) include the invented signs used to represent aspects of English (i.e. English-based signs and invented word endings) or the visible hand-signals representing sound such as Cued Speech.

Pure Tone – A sound characterized by its singleness of pitch; tone of only one frequency.

Rehabilitation – Restoration (following disease, illness, or injury) of ability to function in a normal or near normal manner.

Residual Hearing – The remaining ability to perceive sound.

Site of Lesion – The precise area in the auditory system producing symptoms of abnormal auditory function.

Speech – This is the communication or expression of thoughts in spoken words. It is learned naturally through hearing and practice. For children who are deaf or hard of hearing, the inability to hear all of the acoustic information relayed through speech impacts their ability to produce speech sounds correctly. The range in ability to develop intelligible speech is not totally dependent on the amount of hearing the child has. The ability to hear and self-correct speech sounds often increases the child's speech-reading skills and intelligibility. A child's ability to correctly produce speech is not a reliable predictor of language skills or academic success.

Speech/Language Specialist – A specialist who diagnoses and facilitates the educational process by providing specific services to students with oral-facial anomalies, voice disorders, neurogenic disorders, and fluency disorders.

Speech/Language Pathologist – Person holding a Master's Degree (or equivalent) in speech pathology and having American Speech-Language and Hearing Association certification (CCC-S) who is responsible for the identification and treatment of speech/language disorders and may have minimal training in hearing disorders and testing.

Students' Needs – This term is used in the broadest sense in this document. They could include students' needs for increased competence and skills in many domains, including academic, social behavioral, community living, and other areas. They could also include the need for environmental or instructional modifications to promote academic, social and life skills attainment. This term also incorporates the need for educational services that are responsive to individual and cultural diversity.

Supports – Supports are defined broadly to include any assistance, which enables children to increase their competence, and have their needs met. Supports include professional services and collaboration, environmental and instructional modifications and accommodations, interventions, adapted curriculum, physical assistance, social support, behavioral support, friendship facilitation, equipment and materials.

Total Communication – methodology whose basic premise is to use every and all means to communicate with persons who are deaf such as natural gestures, sign language, fingerspelling, facial expression, and speech heard through amplification.

Historical Perspective

Education for students who are deaf or hard of hearing is one of the earliest areas of specialized education in this country. The focus of educational practice has evolved over time between language instruction with emphasis on spoken language to emphasis on using sign language and everything in between. While educators may disagree on methods and practice, all educators agree that language development is the heart of educational need for these children. As an invisible disability, the impact of hearing loss is challenging at best to understand.

In 1817 Thomas Hopkins Gallaudet and Laurent Clerc established the first school for deaf students in the United States; the American Asylum for the Deaf and Dumb, in Hartford, Connecticut. The first educational programs in the United State were in state schools where most instruction was conducted in American Sign Language and English was taught in its written form. This followed the method of instruction used in France where Clerc, a deaf man, was educated. However, in 1880 the Milan (Italy) Conference voted to ban use of sign language with students worldwide in favor of oral educational techniques viewing signs as an inferior means of communicating. Throughout the United States, state-schools and private schools changed their educational methods to one of an auditory-oral approach.

In Tennessee, as in most states, services for students who were deaf or hard of hearing began at the state school for the deaf. The Tennessee School for the Deaf (TSD) opened in 1844 by an act of the state legislature. Today the school offers an individualized and comprehensive educational program. The school provides a total learning environment that utilizes state of the art curricula, materials, and methods to prepare students for adult life. Students from all over the state stay on campus throughout the school year, going home every weekend, for school holidays, and for summer vacation. The school also offers a comprehensive outreach program to assist Local Education Agencies in educating children who are deaf and hearing impaired in the local community. Referrals for admission to the school are made through the Local Education Agency.

During the 1960's, after a rubella epidemic, there was a significant increase in the number of children born with hearing impairments. About the same time, there was a philosophical shift nation-wide due to the high number of students who did not succeed under the oral-only education method. In response to the needs of students for a visual language, educators developed several signing systems that followed English word order and some that created manual codes for aspects of the English language. This was the beginning of the philosophy of Total Communication. Total Communication (TC) originally meant that the

teacher was proficient at all forms of communicating with a child who was deaf or hard of hearing whether it was through speech, Signed English, American Sign Language, gestures, writing, drawing or any combination of the above. Since that time, TC has come to mean a practice of communicating by speaking and signing at the same time

It was in the 1970's that interpreting came to be as a profession. Educational interpreters began in schools as 'signing-aids'. Many of these people were hired with little or no sign language skill and they learned on the job and from support in community sign language classes. Many educational programs in Tennessee did not have objective strategies for assessing the skills of educational interpreters. In addition, local schools had limited resources for determining skill levels of interpreters. In response to this need, the state of Tennessee, through the Department of Education, developed procedures for screening of educational interpreters who serve Tennessee students who are hearing impaired/deaf. The Department uses the Educational Interpreter Performance Assessment (EIPA). The EIPA is a comprehensive and criterion based instrument designed to provide an ecologically valid assessment of an interpreter's skills. In addition, the Tennessee School for the Deaf and the Department annually provide a Summer Institute for Educational interpreters on the campus of the Tennessee School for the Deaf. Training for practicing educational interpreters is also provided annually at the Statewide Workshop for Teachers, Parents, and other Professionals Serving Deaf Children.

Today, schools in Tennessee maintain a continuum of educational programs designed to meet the range of needs of students who are deaf or hard of hearing. The intellectual abilities of students who are deaf or hard of hearing follow the same range as that of their non-disabled peers; from gifted to cognitively disabled. Student needs range from minimal supports in the general education classroom and curriculum to intensive direct instruction in the child's communication mode at the Tennessee School for the Deaf. Educational philosophies and practices today range from using bilingual-bicultural methods, to total communication, to oral programs.

Effective early intervention has been identified as one of the most successful avenues to success for students who are deaf or hard of hearing comparable with their age peers. Infants identified with hearing loss can be fit with amplification as young as four weeks of age. With appropriate early intervention, language, cognitive, and social development for these infants is very likely to develop on par with hearing peers. Recent research has concluded that children born with a hearing loss who are identified and given appropriate intervention before six months of age have significantly better language skills than those identified after six months of age. In Tennessee, the Tennessee Infant Parent

Services (TIPS) program provides a statewide, home-based program for families of infants and toddlers aged 0 to 3. A trained parent advisor visits in the home weekly to train and give support to parents utilizing a curriculum that emphasizes communication skills, hearing aid management, auditory skills, language skills, and developmental skills.

Technological advances, in the form of digital hearing aids, assistive listening devices and cochlear implants, provides even more opportunities for the development of listening and speech skills among the deaf and hard of hearing population. Computers and the Internet have opened many doors to equal access of information and enhanced direct communication opportunities among deaf and hard of hearing people across the country.

There is no one device, curriculum, language, communication mode or educational philosophy that is appropriate for every child. There is no one factor that can predict success of students who are deaf or hard of hearing. The greatest indicators of success are early identification, strong and consistent family support, appropriate educational supports from qualified staff and an individual sense of confidence and well-being of the student.

Child Find, Screening & Referral

Child find should be an activity that involves all available resources within the community. The effectiveness of a child find program depends upon the involvement and cooperation of state and local agencies, professional groups, and special interest groups. Interagency cooperation generates one of the most effective and efficient means of identifying and locating children with suspected hearing impairment, and children whose needs are not being met through the child's environmental opportunities. In order to identify all children and youth with hearing impairment, community residents must be made aware of the need for identifying and serving such children and of the benefits which may result from early identification and the provision of appropriate services.

Involvement of Media/Communication Resources

Varying methods should be utilized to acquaint the public with child find programs for hearing impaired children. The following types of media may be effectively utilized in an awareness campaign:

1. Radio and TV
2. Newspapers, including community publications
3. Grocery sack stuffers
4. Stuffers for utility bills, bank statements or cable TV bills
5. Posters
6. Brochures
7. Films/tapes
8. Newsletters to school personnel and other agencies
9. Letters to parents
10. Enclosures in AFDC or other public payment envelopes
11. Bumper stickers

Involvement with Other Agencies

Interagency cooperation must begin with an analysis of those public and private resources available and responsible agencies. Agencies that may help the Local Education Agency (LEA) to provide a continuum of child find services include the following:

1. Tennessee Early Intervention System
2. Public Health Departments
3. Department of Human Services (DHS)
4. Department of Children's Services (DCS)
5. Head Start Programs
6. Child Development Centers
7. Day Care Centers
8. Families First Preschool Centers

9. Tennessee Early Childhood Technical Assistance System (TECTA)
10. Title I Preschool Programs

Involvement of Community Resources

Community input and access may include, but is not limited to:

1. Public housing
2. Recreational centers (i.e., YMCA, Boys/Girls Clubs)
3. Public Library
4. Churches, synagogues, and other religious centers
5. Pediatricians and/or family physicians
6. Community-based clubs (i.e., 4-H, Boy/Girl Scouts)

Child Find is an extensive effort to locate all children who are hearing impaired by informing all stakeholders (parents, students, teachers, community) of the characteristics of children who are hearing impaired and the availability of services for children identified hearing impaired

Child find is mandated by federal law for all students suspected of having a disability. (§300.125) Each school system is required to develop and implement, according to state and federal guidelines, a written plan for identifying and serving students suspected of having a disability.

Each school system must identify, locate, and evaluate all children suspected of having hearing impairment and who might need special education and related services. Each school system's general education program must conduct annual child find hearing screening activities in order to identify students with special needs. Any person (parents, school personnel and/or community agency personnel) who reasonably believes that a child may have a disability may make a referral for services. It is preferable that referrals be in writing. Parents must provide written consent before the child is evaluated. The evaluation must assess the child in all areas of suspected disability. The evaluation and IEP process must be completed within 40 school days from the date the parent's signed informed consent is received by the school system.

Hearing Screening

The goal of a hearing screening program is to identify those students whose hearing is impaired resulting from either conductive and/or sensorineural pathology.

Hearing screening should be conducted under the supervision of a certified audiologist. Volunteers are sometimes used for this purpose, and can be from

the community, such as service organizations or parent groups. Some systems may hire personnel for this specific purpose. Volunteer personnel should complete a comprehensive training program. Training should include, but not be limited to the following:

- Basic physics of sound
- Basic anatomy and physiology of the auditory mechanism
- Etiology of hearing disorders
- Importance of hearing conversation
- Identification of hearing loss
- Hearing screening procedures and equipment
- Record keeping procedures
- Care and biologic calibration of equipment
- Special testing techniques for young children

Due to the prevalence of middle ear disease in school-age children, immittance measures are recommended as well as pure tone screening. When immittance measurement is used in conjunction with pure tone screening the following frequencies are recommended: 1000, 2000, 4000 Hz. If immittance testing is not used, 500 Hz should also be screened. The screening environment should be sufficiently quiet to permit pure tone screening levels of 20 dB HL. "Guidelines for Screening for Hearing Impairment and Middle-Ear Disorders" should be reviewed [ASHA, 1990]. The screening environment should be sufficiently quiet to permit pure tone screening levels of 20 dB HL.

New programs should screen all students the first year. In subsequent years grades kindergarten, one, two and three should be screened. Other students with previous history of hearing problems, serious illness, new students, special education students, high risk students and students with teacher referrals should be screened. It is also recommended that students in grades 4-12 be screened every three years.

Students who fail the initial screening should be scheduled for re-screening within two weeks. A subsequent failure should result in referral to the audiologist for threshold testing. Appropriate referrals for medical and rehabilitative action should be initiated by the audiologist, once the presence of hearing loss is established. Letters to the parents with screening results and recommendations for follow-up should be sent immediately after the initial screening. Any subsequent testing should also be reported, in writing, to the parent.

Guidelines for Evaluation

Medical Evaluation and Report

Students, who have a documented hearing loss, may require special education services. Other students may be suspected of having a hearing loss, based on failure of hearing screening and/or observation. These students will require a referral to a physician or audiologist for examination and may require special education services.

The physician or audiologist will need to send a written report to the school or the teacher of students with hearing impairment. This report should provide written documentation of the hearing loss which includes, but is not limited to:

- history of hearing loss
- cause of hearing loss
- audiogram to include but not limited to:
 - pure tone air/bone conduction thresholds
 - speech recognition thresholds (SRT)
 - word recognition scores
 - immittance measurement

This medical information will assist the teacher of students with hearing impairment in determining what formal and informal assessments will need to be conducted.

Criteria for Eligibility

A child must have one or more of the following characteristics:

- inability to communicate effectively due to hearing impairment
- inability to perform academically on a level commensurate with the expected level because of hearing problems
- delayed speech and language development due to hearing impairment.

Once a child has failed the hearing screening, and threshold testing has been done which indicates that an educationally significant hearing loss may exist, the next step is to have the child audiotically evaluated. The audiologist will conduct tests to determine if one of the following conditions exists:

- subnormal thresholds
- fluctuating thresholds possibly resulting from middle ear pathology.

Children who present either of these characteristics may be identified as hearing impaired.

The audiologist evaluating a child may use a variety of tests and measurements, depending on the unique needs of the child. Standard techniques would certainly include pure tone audiometry to establish air and bone conduction thresholds at each ear. Other measures, such as those used to establish speech reception thresholds, speech discrimination levels, and acoustic reflect thresholds, will often be done as this information, along with the audiologist's observations and impressions will be valuable when the IEP Team meets to determine the extent to which the child's hearing impairment constitutes an educationally significant disability.

Evaluation Procedures

Evaluation components shall include:

- audiological evaluation;
- assessment of speech and language performance;
- school history and levels of educational performance; and
- documentation, including observation of classroom performance and assessment of how a hearing impairment adversely affects educational performance in the classroom or learning environment

Once it is determined that the child meets the state criteria for a hearing impairment, the critical process of determining if the child needs special education services begins. While an audiologist or a physician qualified to interpret audiological data is qualified to assess a child as hearing impaired, this professional is only one member of a team sharing responsibility for establishing programming guidelines for the child.

Often before the need for special services can be established, and certainly before an IEP can be developed, information from several other sources will need to be gathered.

In determining the most appropriate way of interpreting the components listed above, it is helpful to conceptualize the evaluation process as consisting of two domains: 1) evaluation related to that state criteria and 2) evaluation related to the child's need for special services. When one views the three assessment areas from this perspective, it becomes readily apparent that audiological evaluation relates to the child meeting the state criteria while the two remaining areas deal with information which may be necessary in determining the child's need for special services. While the last two areas provide information which would be helpful in programming for most children, the intent of the Tennessee

Rules and Regulations and Minimum Standards is not to specify that a formal speech assessment must be conducted on each hearing impaired child (though desirable in most cases.). This should not be construed to mean that these categories of data are all that are needed to adequately program for each child.

Assessment of students who are hearing impaired may involve professionals from several disciplines, such as the audiologist, ENT specialist, speech-language pathologist, teacher, school psychologist, and other consultants. At a minimum, assessments must include the three areas cited in the Policies and Procedures. The following are descriptions of assessment considerations in each area:

Audiological Evaluation

This should be obtained from an audiologist or an ENT specialist. For further information regarding audiological evaluations, see the previous section on “Criteria.”

Speech and Language Performance

Most students who are deaf and many students who are hard of hearing possess a major disability in the area of communication. The dimensions of speech and receptive and expressive language are essential components of the evaluation. The speech-language assessment should be conducted by a speech-language pathologist, who is the assessment specialist in these areas. In many cases, other professionals such as a certified teacher of the hearing impaired or a school psychologist can gain useful information about a student’s language skills by using certain language evaluation instruments. This is especially useful for program planning, or to gain clarification about the student’s language skills. Few speech-language tests have been standardized on students who are hearing impaired; however, several tests can be adapted successfully to provide information to the examiner.

The specific tests mentioned below are not an exhaustive list of assessment tools but represent the most commonly used measures.

Articulation tests are: the Goldman-Fristoe Test of Articulation, Templin-Darley Test of Articulation, and the WEISS Comprehensive Articulation Test. There are several speech screening tests available, and articulation skills can be assessed adequately on an informal level using an analysis of conversational speech. The Phonological Speech Evaluation and the Phonetic Speech Evaluation by Daniel Ling are specifically designed to assess the speech of hearing impaired children

Speech discrimination may be assessed, especially for those students who will receive speech-reading services. This can be done formally by the use of such tests as the Wepman Test of Auditory Discrimination, the Word Discrimination Subtest from the Test of Language Development and the auditory discrimination test from the Goldman-Fristoe-Woodcock Auditory Skills Battery. Discrimination can also be assessed informally by using words and sentences.

There are several receptive language evaluation instruments; however, only two have been standardized on deaf students: The Test of Syntactic Abilities and the Test of Auditory Comprehension. These tests have been normed and are criterion-referenced for hearing impaired students.

Other instruments which measure receptive language skills and which have been validated for use in the State of Tennessee are the Receptive Picture and Receptive Print Inventories developed by the Tennessee School for the Deaf. Both inventories are criterion-referenced.

Other receptive language tests which are not normed for the hearing impaired, but can be adapted include: Boehm Test of Basic Concepts, Preschool Language Scale, Peabody Picture Vocabulary Test (revised), Vocabulary Comprehension Scale, subtests from the Test of Language Vocabulary Comprehension Scale, subtests from the Illinois Test of Psycholinguistic Abilities, and the Test for Auditory Comprehension of Language. Receptive language may also be measured informally; however, it is more difficult to obtain the student's present level of performance in receptive language using informal measures alone.

Expressive language can be measured using a variety of instruments depending on the child's age and communication level. Again, test results should be regarded cautiously as there is little standardized data on expressive language for the deaf and hard of hearing. The Grammatical Analysis of Elicited Language rates expressive language skills (syntax) and is standardized on hearing impaired children ages 3-9. The following instruments may be adapted in the area of expressive language: Preschool Language Scale, subtests from the Test of Language Development, Developmental Sentence Scoring, subtest from the Illinois Test of Psycholinguistic Abilities, Oral Language Sentence Imitation Screening Test, and the Carrow Elicited Language Inventory. Language Processing Test. Conversational language samples and observations are also very useful in assessing expressive language. Information regarding language performance may also be obtained from other sources, such as a psychological evaluation which includes a verbal component.

School History and Levels of Educational Performance

A statement about the student's present level of performance is a component of the IEP which is essential in setting goals and objectives. When the review of school history and educational records do not identify current levels or additional information is needed, it is the job of the teacher of hearing impairments to assess or secure the assessment.

The present level of performance on basic skills in reading, math, and writing are key to providing information for the development of the IEP. Assessments may be either criterion referenced, comparing skills to mastery of specific performance indicators, or norm referenced, comparing individual performance to that of a national or state sample. Some of these assessments are group administered, while others are individually administered.

Curriculum Standards have been identified by the Tennessee Division of Curriculum and Instruction of the Department of Education for content areas across the curriculum and for each grade level. These standards are detailed on the state website and updated frequently (see references). These standards identify performance indicators and serve as criterion referenced indicators of achievement and are used in structuring course content.

Cumulative school records are the best way to obtain information about school history; although, information from other sources, such as parents, is also helpful.

Both formal and informal tests can be administered to obtain levels of educational performance. Teacher constructed tests which measure specific objectives, behavior incident reports, work samples, and language samples are excellent informal assessment tools. Formal education assessment can be accomplished with a variety of instruments, but most of these require adaptations for students, who are deaf and hard of hearing, e.g., adaptations in mode of communication and verbal directions.

The Stanford Achievement Test, hearing impaired edition, is normed for the hearing impaired and yields percentile comparisons for the hearing impaired, as well as grade levels compared with the hearing population. It is suggested that only the subtests dealing with reading comprehension and mathematics computation (SAT-HI) be administered because all other subtests are actually measures of reading comprehension. The Test of Syntactic Abilities (TSA) measures receptive language skills and is norm-referenced for the hearing impaired. It is suggested that only the screening portion of the TSA be administered, one can select additional subtests as deemed helpful.

Other formal evaluation instruments, which may be useful, are in the appendix F.

Four of these curricular areas have been identified for testing:

- English/Language Arts,
- Mathematics,
- Science, and
- Social Studies

The Tennessee Consolidated Assessment Program (TCAP) has been developed for monitoring and tracking student progress in these curricular areas. The norm reference information from TCAP Achievement Tests, TCAP Competency Test, the End of Course Test, and the Gateway Tests compares the performance of students with hearing impairments with that of the normally hearing peers. The TCAP-Alt: PA (Portfolio) and TCAP-Alt: ASA (Academic Skills Assessment) provide a method for assessing progress in the four curriculum areas.

Additional and more meaningful testing, beyond state mandated testing, is usually required to determine the student's present skill levels.

Detailed information from the teacher of students with hearing impairments about the test accommodations is needed for any accurate administration and interpretation of test results.

Psychological Assessment of Children Who Are Deaf

Although not required in the assessment, a psychological evaluation performed appropriately can yield information which is invaluable in programming for a child with a hearing impairment. The remarks that follow will draw heavily on the writings of Dr. McCay Vernon, noted psychologist in the field of psychological assessment of children who are deaf.

A. Intelligence Testing: Basic Considerations in the Intelligence of Children Who Are Deaf and Hard of Hearing

1. To be valid as a measure of the intelligence of a youngster, who is deaf, an IQ test must be a nonverbal performance-type instrument. Verbal tests with children who are deaf are almost always inappropriate. They measure language deficiency caused by hearing loss rather than measuring intelligence.

Children who are hard of hearing may give the false impression of being able to understand verbal tests. In testing such children, it is essential to begin with a performance measure. If desired, a verbal instrument could also be used. In cases where the score yielded by the former is appreciably higher, the probability is that it is the more valid and that the lower score on the test involving language is due to the subject's hearing impairment and does not constitute a true measure of intelligence.

2. Even more than with hearing subjects, scores on preschool and primary school-aged children who are deaf and hard of hearing tend to be extremely unreliable. For this reason, low scores, in particular, should be viewed questionable in the absence of other supporting data.
3. There is far more danger that a low IQ score is wrong than a high one is inaccurate. This is due to many factors that can lead to a child's inability to perform. In contrast, there are almost no conditions that can lead to performance above capacity.
4. Tests given to children who are deaf by psychologists not experienced with the deaf or hard of hearing are subject to appreciably greater error than those given by one familiar with deaf youngsters. Children with hearing impairments frequently visually monitor their environment and nod their head "yes", without understanding fully. This atypical attentive set of testing by the child with a hearing impairment, which has been frequently cited in the literature, is felt to be one of the reasons for such error.

5. It must be noted that the performance part of many conventional intelligence tests is only half or less of the test. Therefore, to approach the validity of a full IQ test with a child who is deaf, it is necessary to give at least two performance scales.
 6. Intelligence tests that emphasize time for young children (age 12 or below) who are deaf or hard of hearing, in most cases, are not as valid as other tests which do not stress time. This is because these children often react to the factor of timing by either working in great haste and ignoring accuracy or disregarding the time factor completely. In either instance, the result is not necessarily a reflection of intelligence.
 7. Group testing of children who are deaf and hard of hearing is a highly questionable procedure that, at best, is of use only as a gross screening device.
- B. Personality Testing: General Considerations to be made in the Personality Testing of Children who Are Deaf and Hard of Hearing. As in the case of intelligence testing, it is important in the personality measurement of children with hearing impairments to consider certain basic factors prior to evaluating specific tests. These factors are:
1. Personality evaluation is a far more complex task than is IQ testing, especially with children who are deaf. Because of this, test findings should be interpreted in light of case history data and personal experience with the child. In fact, it behooves educators of the deaf with long experience in the field to view with skepticism results reported by examiners who are unfamiliar with children who are deaf when these findings sharply contradict their own impressions of youngsters they know well.
 2. Because of communication problems inherent in severe hearing loss, personality tests are more difficult to use with subjects who are deaf than with the general population. Not only do these tests depend on extensive verbal interchange or reading skills, but they also presuppose a rapport and confidence on the part of the subject that is difficult to achieve when the person examined cannot understand what is being said or written. Paper and pencil personality measures are perhaps suitable for children with hearing impairments with well-developed expressive and receptive language ability, but such youngsters are rare, and even with them the problems of test administration and interpretation make the results highly invalid. The need for fluency in manual communication by the examiner is especially evident in the area of projective testing.

3. There is some question as to whether the personality norms for hearing people are appropriate for subjects who are deaf and hard of hearing. Conceivable deafness alters the perceived environment sufficiently to bring about an essentially different organization of personality in which the normality would then differ from that of a person with normal hearing. Although this is presently an unresolved problem, it is one that is frequently raised by specialists in the field of deafness and should be considered in any discussion of the personalities of those with severe hearing loss.
4. The use of interpreters who express the psychologist's directions in fingerspelling and sign language is a questionable procedure. What is required is an interpreter who is fluent not only in manual communication, but also in psychology and testing. Obviously, this person would be doing the examining, and not interpreting it for another. Therefore, results reported where an interpreter is involved are not likely to meet high standards of validity.

C. Suggested Psychological Test Batteries for School Age Children Who Are Deaf and Hard of Hearing. Because adequate psychological assessment should properly be based on a series of tests rather than a single instrument, the following test batteries are suggested for the various age groups of a school population:

1. Preschool – Measurement of intelligence should be based on at least two of the following IQ tests: Leiter International Performance Scale, Merrill-Palmer Scale of Mental Tests, or Smith-Johnson Nonverbal Performance Test. There are no suitable personality tests for preschool children who are deaf. Clinical judgment, play-therapy situations, medical, audiological, and case history data must be depended upon exclusively for evaluation in this area. The Developmental Test of Visual-Motor Integration can provide the examiner with an idea of the child's visual-motor development.
2. Beginning School Age through Age Nine – Cognitive tests preferably should include two of the following: Universal Nonverbal Intelligence Test (UNIT), Wechsler Intelligence Scale for Children (WISC-III) Performance Scales, Leiter International Performance Scale, Kaufman Assessment Battery for Children (KABC), Test of Nonverbal Intelligence (TONI 3), Comprehensive Test of Nonverbal Intelligence (CTONI). The Goodenough-Harris Drawing Test can be used as a supplemental measure of mental maturity, and has utility along with Bender-Gestalt

responses when screening for emotional and perceptual problems. Academic achievement tests may not be appropriate yet for some in this age range.

3. Ages Nine through Fifteen – Several of the tests of cognitive ability listed above (UNIT, WISC-III Performance, KABC, C-TONI, TONI 3) have utility with this age group. Human figure drawings and the Bender-Gestalt are helpful and valid measures for this age range and prove to be good screening techniques for personality disturbance and perceptual delay. Tests of academic achievement should be included in a general psycho-educational battery for students in this age range.
4. Age Sixteen and Above – The UNIT and the WAIS-III Performance Scales are preferred. Measures of cognitive ability for this age range. Other measures with validity are the TONI 3 and the CTONI. The Bender-Gestalt and the Goodenough-Harris Drawing Test are useful measures for perceptual impairments

Determination of Need for Services

A. Parent Involvement

Although parent involvement occurs throughout the entire process from child-find to program completion and is viewed by educational administrators as a welcome necessity, ensuring involvement of parents of children who are deaf sometimes presents unique challenges. In many cases, deafness is a hereditary disorder. Interpreters must be provided for parents who are deaf when sign language is the mode of communication used by the parents. Making this provision not only will meet the requirements of the law, but will also demonstrate to the parents that the school is genuinely interested in their input.

B. IEP Team Process

When IEP Team members meet to determine that a child with a hearing impairment needs special services, it is important to consider that the disciplines which need to be represented may vary somewhat from IEP Team composition for other disability categories. In addition to the parent, classroom teachers, and an administrative staff member, the following individuals may have information which greatly enhance the process of successful program development: the audiologist, speech therapist, rehabilitation services counselor, interpreter, teacher of the hearing impaired, and special education teacher.

In order that everyone involved in deciding on the child's needs for special services fully understands the uniqueness of the child, assessment data will be discussed fully. While parents of children who are deaf are accustomed to

interacting with professionals due to their frequent visits to speech and hearing centers, physicians, etc., many do not have a full understanding of the implications of hearing impairment on their child's educational development.

C. Programming Considerations

In order to ensure quality educational programming for the child who is hearing impaired, the following factors need to be considered, both at the time of initial placement and on an ongoing basis.

1. In-service for instructional staff
2. Special classroom equipment
3. Hearing aids/auditory trainers/assistive listening devices and systems
4. Cochlear implants
5. Acoustical treatment of classrooms
6. Ongoing personal audiological management
7. Oral/manual interpreters
8. Consultation by audiologist, speech therapist, deaf education teacher or special education teacher
9. Orientation for peers with normal hearing
10. Preferential seating
11. Itinerant service
12. Speech therapy
13. Communication skills development
14. Auditory training
15. Speechreading training
16. Parent counseling
17. Affective education/social emotional development
18. Visual training
19. Hearing aid orientation
20. Resource instruction
21. Special transportation
22. Teachers' aides/paraprofessionals
23. Special Curriculum materials
24. Computer assisted instruction
25. Sex education
26. TTY use and training
27. Vocational evaluation and training
28. Career awareness/counseling
29. Outside services: speech therapy, physical therapy, audiological, psychological, vocational rehabilitation, public health
30. Full time CDC in public school
31. Special Day Program
32. Preschool

- 33. Services for secondary disabilities depending upon disability
- 34. Training centers/sheltered workshops
- 35. Mainstreaming in regular classes
- 36. Contracted services with other schools
- 37. Full time residential placement
- 38. Home training/hospital instruction

Assessment Specialists

The following persons shall be involved in the assessment of hearing impairment:

- A physician or audiologist;
- A speech/language teacher or specialist
- Anyone else designated by the IEP Team

Since identification of the disability is based on audiological information, either an audiologist or a physician who can interpret audiological data must be involved in the assessment of hearing impairment.

Eligibility Guidelines

IEP Team Eligibility Determination

Eligibility Guidelines for students with hearing impairments and / or deafness are divided into three characteristics:

- 1) inability to communicate effectively due to a hearing impairment or deafness;
- 2) inability to perform academically on a level commensurate with the expected level because of hearing impairment or deafness
- 3) delayed speech and /or language development due to hearing impairment or deafness.

If these characteristics as defined above are present and cause an adverse effect on educational performance in the general education classroom or learning environment, including academic performance, speech and / or language development skills, then the IEP team must address the child's language and communication needs. The following areas should be addressed when assessing the student with hearing impairment or deafness:

- 1) Audiological Evaluation
- 2) Speech and Language Performance
- 3) School history and levels of educational performance
- 4) Documentation of how a hearing impairment adversely affects educational performance in the general education classroom or learning environment.

Audiological Evaluation

A current audiological evaluation must be completed by a licensed audiologist or licensed physician. The IEP team determines if the audiological report provides sufficient information in order to make a determination of impairment. The audiological evaluation alone does not completely define the functional hearing of the student or the ability of the student to learn through the auditory or visual modalities. Not all students who are deaf or hearing impaired with a similar audiological evaluation will function in the same manner even with amplification.

The IEP team should review information about how the student uses his/her hearing in multiple settings and under various conditions (varied input complexity, various types of background noise and different modes of input), with and without amplification.

The audiological evaluation should include information regarding the potential of the child to benefit from his/her hearing with or without hearing aids and /or assistive listening devices.

The audiological evaluation should include, if appropriate, information on the potential for a progressive hearing loss. These students need audiological monitoring and are at risk for decreased hearing that can impact their educational performance.

Language Performance and Speech Performance

Dr. Robert Davilla said, “The disability of deafness often results in significant and unique educational needs for the individual child. The major barriers to learning associated with deafness relate to language and communication, which, in turn, profoundly affect most aspects of the educational process. For example, acquiring basic English skills is a tremendous challenge for most students who are deaf. “

Most children enter school with a basic command of language, an extensive vocabulary, and an ability to process linguistic information. Schools design their curriculum to build on the existing language skills of typically developing children. Children who are deaf or hearing impaired seldom bring to school the same extensive language base as do children with normal hearing. Limited access to *incidental learning* through everyday opportunities for direct interaction with peers and adults inhibits the language development of these students. It is important for the IEP team to consider the student’s academic potential along with his/her performance and how the impairment in hearing impacts the child’s ability to develop language and literacy skills comparable to age level peers. If the child demonstrates the characteristics of language delay typical of children with a hearing impairment, then the child may be a child with an impairment in hearing and in need of special education. If identification of a delay and remediation occur early so that the child can develop a strong language base, the child is more likely to participate fully in the general curriculum at grade level. “*The notion that a student is doing well, “for a deaf child” does this population a disservice.*” (NASDE Guidelines).

Speech perception and production are dependent on the ability to hear and decode the acoustic information in speech. Most students with impairment in hearing will know that someone is speaking, but the message will be distorted or diminished such that the listener misses the acoustic cues. Often this will result

in the student not knowing or trusting whether what was said was what was intended. During group situations, such as class discussion, or in noisy situations such as small group activities, these students may not be able to follow the dialogue, grasp the main points, or learn new concepts and vocabulary. This in turn leads to delays in language and curricular knowledge and use. It can also impact a student's confidence in participating in discussion or verbal exchange. Common behavioral indicators of frustration are acting – out or withdrawal. A teacher of students who are deaf or hearing impaired is a key player in helping to interface the student's abilities with the listening and learning demands of the classroom. A speech and language evaluation should be part of the evaluation for children being evaluated for deafness or hearing impairment. A speech-language pathologist, who is the assessment specialist in these areas, should conduct the speech language assessment.

School History and Levels of Educational Performance

Cumulative school records are the best way to obtain information about school history; although, information from other sources, such as parents and classroom teachers is also helpful.

Both formal and informal tests can be administered to obtain levels of educational performance. Teacher constructed tests which measure specific objectives, behavior incident reports, work samples, and language samples are excellent informal assessment tools. Formal education assessment can be accomplished with a variety of instruments, but most of these require adaptations for students who are deaf and hearing impaired, e.g. adaptations in mode of communication and verbal directions.

Adverse Affects on Educational Performance

The most common impact of deafness or hearing impairment on academics is in the area of reading and literacy skills. Successful reading depends on multiple factors including general word knowledge, effective decoding skills, and experience with print. Writing is dependent on good reading skills. Literacy competency is the heart of educational center of academic success. Students who are deaf and those who are hearing impaired are challenged in this academic area often developing independent reading skills several grades below non-disabled peers.

Likewise, language is the heart of human development. Language connects us to information and to each other. Students with hearing impairments have gaps in basic language skills in everyday conversation and in academic language. Deafness or hearing impairment impacts the student's language development in many ways. The inability to hear everyday conversation impedes a child's opportunity for incidental learning and vocabulary development.

Mild hearing loss or a unilateral hearing loss can adversely affect a student's academic development significantly enough to require special education and related services in order to meet his/ her educational needs.

Communication Needs

The reauthorization of IDEA'97 specifically states that the communication needs and language of the student who is hearing impaired or deaf must be addressed in the IEP. The IEP team must consider the child's language and communication needs, opportunities for direct communication with peers and professional personnel in the child's language and communication mode. The IEP team must also consider opportunities for direct instruction in the child's language and communication mode.

Considerations of Other Disabilities

Many students who are identified with a hearing impairment will have concomitant disabilities, which impede their progress in acquiring skills through the general education curriculum. Some of these disabilities may in fact be due to the same genetic or developmental factor, which contributed to the student's identified hearing impairment. Frequently these additional disabilities are overlooked once the student has been identified as eligible with a hearing impairment. This section provides guidance for determining when other disabilities may be causing an adverse affect on the student's progress within the general education curriculum, and best practices in the evaluation of "suspected" concomitant disabilities.

The determination of hearing impairment in a student in no way excludes the existence of other educational disabilities. In fact, of the 15 disabilities utilized in Tennessee which do not specifically refer to hearing, all can exist along with hearing impairment or, in the case of multiple disabilities, subsume hearing impairment as a component. These would include:

- Specific Learning Disabilities
- Mental Retardation
- Intellectually Gifted
- Speech Impairment
- Language Impairment
- Emotional Disturbance
- Autism
- Health Impairment
- Orthopedic/Physical Impairment
- Vision Impairment
- Multiple Disabilities
- Other – Functional Delay
- Other – Developmental Delay
- Traumatic Brain Injury

In each case, the requirements for determining eligibility for the other educational disabilities would apply as written, with some assessment adaptations necessary, along with experience in how various functions can be affected by hearing impairment.

When assessing to determine the existence of a disability for which a student may require special services, the purpose is to determine how the individual compares to the population of same-age peers as a whole, rather than to an

isolated population of students with similar disabilities. Therefore, it is not appropriate to hunt for assessment procedures developed only for individuals with disabilities. Instead, comparing students with hearing impairments as much as possible to non-disabled students within the same age range, leaving out the procedures which cannot be administered, and reporting any adaptations which may deviate from standardization should be the course of action.

Learning Disabilities and Hearing Impairment/Deafness

Students who are hearing impaired can also be termed learning disabled. Identifying the nature of a learning disability in such case becomes difficult due to the limitations in accurately measuring cognitive and academic ability of children with hearing impairment. Assessment data is complicated by the compounded effects of two or more disabilities. For example, the examiner should take care not to attribute lower scores on performance tasks to limited cognitive development when a student also demonstrates significant visual perceptual impairment. Conversely, deficits in verbal and language areas are expected effects of hearing loss that may hide concomitant learning problems with reading or language skills. Observation and clinical evidence in cases where a learning disability significantly affects the hearing impaired child should take precedence over formulae in identifying students with learning disabilities.

Tennessee Organizations and Centers Serving People Who are Deaf and Hard of Hearing

AT&T: Tennessee Relay Service

7104 Crossroads Blvd., SUITE 101, Brentwood, Tennessee 37027

1-800-848-0298 (TTY Users)

1-800-848-0299 (Voice Users)

Camp for Deaf and Hard of Hearing Students

Tennessee School for the Deaf, 2725 Island Home Blvd. Knoxville, Tennessee 37920

(865) 579-2418 (Voice/TDD)

Fax: (865)-579-2484.

Available Online: <http://voyager.rtd.utk.edu/~tsd/>

Center on Deafness

The University of Tennessee

A509 Claxton Complex, Knoxville, TN 37996-4020

(865) 974-0607 (Voice/TTY)

FAX: (865) 974-3522;

Available Online: <http://sunsite.utk.edu/cod/>

Comprehensive Resource Center on Deafness

Tennessee School for the Deaf, 2725 Island Home Blvd., Knoxville, Tennessee 37920

(865) 579-2452 (Voice / TTY)

Fax: (865) 579-2419

Available Online: <http://voyager.rtd.edu/~tsd/>

Developmental Disabilities Council

Cordell Hull Building, 5th Floor, 425 Fifth Avenue, North, Nashville, TN 37243

(615) 741-4562 (Voice/TTY)

Fax (615) 532-6964; E-mail tnddc@mail.state.tn.us

Available Online: <http://www.state.tn.us/mental/tddc.html>

The Ear Foundation at Baptist Hospital

1817 Patterson Street, Nashville, TN 37203

(515) 329-7807 (Voice;TTY); 1-800-545-4327 (Voice/TTY)

Fax: (615) 329-7935; E-mail ear@earfoundation.org

Available Online: <http://www.earfoundation.org>

Educational Interpreters Summer Institute

2725 Island Home Blvd., Knoxville, TN 37920
(865) 579-2429 (Voice/TTY)
Fax: (865) 579-2419;
E-mail: tinap@tsd.k12.tn.us

Interact Children's Theatre for the Deaf

c/o 1626 LeConte Drive; Maryville, TN 37803
(865) 609-1646 (V/TTY);
Available Online: web.utk.edu/~jdaniels/interact.html
E-mail: interactknoxville@yahoo.com

Library Services for the Deaf and Hard of Hearing

615 Church Street, Nashville, TN 37219
(615) 862-5750 (Voice /TTY) & 1-800-342-3262 (TN Only- Voice/TTY)
Fax: (615) 862-5494
Available online: <http://www.library.nashville.org/Library/Depts/HearingImp.html>

Meniere's Network – The EAR Foundation

1817 Patterson Street, Nashville, TN 37203
(615) 329-7807 & 1-800-545-4327 (Voice /TTY)
Fax: (615) 329-7935.
E-mail: ear@ear-foundation.Org
Available online: <http://www.earfoundation.org>

Parent Support Services

2725 Island Home Blvd., Knoxville, Tennessee, 37920
(865) 579-2507 (Voice/TTY)
Fax: (865) 579-2419

Postsecondary Education Consortium

The University of Tennessee, 2229 A 509 Claxton Complex, Knoxville, TN 37996-4020
(865) 974-0607 (Voice/TTY); (865) 974-8428 (TTY only)
Fax: (865) 974-3522

Rehabilitation Services, Administrative Office

400 Deaderick Street, Suite 1100, Nashville, Tennessee 37248-6000
(615) 313-4894 & 1-800-270-1349 (Voice / TTY)
Fax: (615) 741-6508

Self Help for Hard of Hearing People (SHHH)

440 Old Highway 11. Sweetwater, TN 37874
(423) 337-5155 (Voice only)

**Statewide Workshop for Teachers, Parents, and other Professionals
Serving Deaf and Hard of Hearing Children**

2725 Island Home Blvd, Knoxville, TN 37920
(865) 579-2410 (Voice/ TTY) Fax: (865) 579-2419

Statewide Independent Living Council, Inc.

(S.I.L.C); 480 Craighead Avenue, #200, Nashville, TN 37204
(615) 297-2666 (Voice / TTY); (615) 292-7790 (TTY only)
Fax: (615) 383-1176
E-mail: the-silc@mindspring.com

**Tennessee Association of Audiologists and Speech-Language Pathologists
(TAASLP)**

PO BOX 70, Spring Hill, TN 37174
(931) 487-9781 (Voice / TTY)
Fax: (931) 487-9870

Tennessee Association of the Deaf

PO Box 293385, Nashville, TN 37229-3385
(423) 855-8670 (Voice/ TTY – after seven rings, activates Fax)

Tennessee Committee on Employment of People with Disabilities

400 Deaderick Street, Suite 1100, Nashville, TN 37248-6000
(615) 313-4907 (Voice Only); (615) 313-5695 (TTY Only)
Fax: (615) 741-6508

Tennessee Council for the Deaf and Hard of Hearing

415 Fourth Avenue, South, Suite 101 Nashville, TN 37201
(615) 259-2061; (615) 259-2060 (TTY)
Fax: (615) 259-0702

Tennessee Cued Speech Family Network

2705 Westwood Avenue, Nashville, TN 37212-5217
(615) 297-7165 (Voice/TTY)

Tennessee Deaf-Blind Association, Inc.

2234 West Gilbert Lane, Knoxville, TN 37920 – 3648
(865) 577-1192 (TTY only); Fax: (865) 577-6126

Tennessee Disability Coalition

480 Craighead Street, Suite 200, Nashville, TN 37204

(615) 383-9442 (Voice Only)

Fax: (615) 383-1176.

E-mail: coalition@tndisability.org

Available Online: <http://www.tndisability.org>

Tennessee Organization of Deaf-Blind, Inc.

221 Danycrest, Donelson, TN 37214

(615) 889-7651 (TTY Only); Fax: (615) 313-6617 (Attn: Cathy)

Tennessee Registry of Interpreters for the Deaf

PO Box 546, Munford, TN 38058; (901) 837-9930

Voice/ TTY)

Fax: (901) 837-8100

E-mail tennrid@aol.com

Available Online: <http://www.tennreiud.org>

Tennessee Rehabilitation Center

460 Ninth Avenue, Smyrna, TN 37167-2010

(615) 741-4921 (Voice Only); (615) 223-9402 (TTY Only)

Tennessee School for the Blind

115 Stewarts Ferry Pike, Nashville, TN 37214

(615) 231-7300 (Voice only)

Fax: (615) 231-7307

Tennessee School for the Deaf

2725 Island Home Blvd., Knoxville, TN 37920

(865)594-6022 (Voice/TTY)

Fax: (865) 579-2484

Available Online: <http://tsdeaf.org/>

Tennessee School for the Deaf Alumni Association

2837 Gaywinds Court, Nashville, TN 37214-1306

(615) 889-2980 (TTY Only)

Fax: (615) 889-2665

Tennessee Services for the Blind and Visually Impaired

400 Deaderick Street, 11th Floor, Nashville, TN 37248-6200

(615) 313-4917 (Voice only), (615) 331-6601 (TTY only); 1-800-270-1349 (TTY only)

Fax: (615) 313-6617

Tennessee Technology Access Project

Andrew Johnson Tower 10th Floor, 710 James Robertson Pkwy., Nashville, TN
37243-0675

(615) 532-6719

E-mail ttap@mail.state.tn.us

**TREDS (Tennessee Technical Assistance and Resources for Enhancing
Deaf/Blind Supports)**

Box 328, Peabody College of Vanderbilt University, Nashville, TN 37203

Nashville Area: (615) 322-8279 (Voice only) or (615) 322-8280 (Voice / TTY);

Toll-Free: 1-800-288-2266 (Voice/TTY)

Fax: (615) 343-1570

West Tennessee School for the Deaf

100 Berry Hill Drive,

Jackson, TN 38301

Voice (731) 423-5705

Fax (731) 423-6470

Contact information: <http://www.wtsd.tn.org/>

Tennessee Council for the Deaf and Hard of Hearing Community Centers

Chattanooga – Family and Children Services, Services for the Deaf (FCSSD)

225 East 8th Street, Chattanooga, TN 37403; (423) 755-2850
(423) 755-2859 TTY
Fax: (423) 755-2731
E-mail: llawson@mail.fcschatt.org

Jackson – Jackson Center for Independent Living, Deaf Services (JCIL, DS)

231-C North Parkway, Jackson, TN 38305
(731) 664-3986; (731) 668-1772 (TTY)
Fax: (731) 668-0406
E-mail: jcildeaf@hotmail.com

Johnson City – Frontier Health, Communication Center for the Deaf and Hard of Hearing (CCDHH)

112 E. Myrtle Avenue, Suite 503 Johnson City, TN 37601
(423) 434-0447; (423) 434-0448 (TTY)
Fax: (423) 434-0880
E-mail: cchh@frontierhealth.org

Knoxville – Knoxville Area Community Center for the Deaf (KACCD)

3731 Martin Mill Pike, Knoxville, TN 37920-24
(865) 579-0832; (865) 573-5640 TTY
Fax: (865) 577-0656
E-mail: kaccd@kornet.org

Memphis – Interpreting Services for the Deaf, Inc. (ISD)

144 N. Bellevue, Memphis, TN 38104
(901) 278-9307
(901) 278-9301
Fax: (901) 278-9301
E-mail: isdmemphis@aol.com

Nashville – League for the Deaf and Hard of Hearing (LDHH)

415 4th Avenue, South Nashville, TN, 37201
(615) 248-8828 (Voice / TTY)
(615) 244-0979 (24 hour emergency service)
Fax: (615) 248-4797
E-mail: deaf@bellsouth.net
Internet Address: <http://www.citysearch.com/nas/hearingimpaired>

National Organizations and Centers Serving People Who Are Deaf and Hard of Hearing

Alexander Graham Bell Association for the Deaf

3417 Volta PI NW
Washington, DC 20007
Voice: 202-337-5220
TTY: 202-337-5220
FAX: 202-337-8314
Email: agbell2@aol.com
Available Online: www.agbell.org

American Deafness and Rehab Association (ADARA)

PO Box 727
Lusby, Maryland 20657
Voice: 410-495-8440
TTY: 410-495-8440
FAX: 410-495-8442
Email: adaraorgn@aol.com
Available Online: www.adara.org

American Hearing Research Foundation

55 E. Washington Street, Suite 2022
Chicago, Illinois 60602
Voice: 312-726-9670
FAX: 312-726-9695
Email: blederer@american-hearing.org

American Society for Deaf Children

PO Box 3355
Gettysburg, Pennsylvania 17325
Voice: 717-334-7922
TTY: 717-334-7922
FAX: 717-334-8808
Toll Free (V/T): 800-942-2732 (Parent hotline)
Email: asdc1@aol.com

American Speech-Language-Hearing Association

10801 Rockville Pike
Rockville, Maryland 20852
Voice: 800-638-8255
TTY: 800-638-8255
FAX: 301-897-7348
Toll Free: 800-638-8255 (V/T)
Email: irc@asha.org
Available Online: www.asha.org

Conference of Educational Administrators of Schools and Programs for the Deaf

P.O. Box 1(778
St. Augustine, Florida 32085-1778
Voice: 904-810-5200
TTY: 904-810-5200
FAX: 904-810-5225
Email: innceased@aug.com
Available Online: www.CEASD.org

Convention of American Instructors of the Deaf (CAID) Membership Office

PO Box 377
Bedford, Texas 76095-0377
Voice: 817-354-8414
TTY: 817-354-8414
Email: caid@swbell.net
Available Online: www.caid.org

National Association of the Deaf

814 Thayer Avenue
Silver Spring, Maryland 20910-4500
Voice: 301-587-1788
TTY: 301-587-1789
FAX: 301-587-1791
Email: nadinfo@nad.org
Available Online: www.nad.org

National Captioning Institute, Inc.

1900 Gallows Road, Suite 3000
Vienna, Virginia 22182
Voice: 703-917-7600
TTY: 703-917-7600
Toll Free: 800-374-3986 (V/T)

National Cued Speech Association Deaf Children's Literacy Project

23970 Hermitage Road

Cleveland, Ohio 44122-4008

Voice: 800-459-3529

TTY: 800-459-3529

Email: cuedspdisc@aol.com

Available Online: www.cuedspeech.org

Registry of Interpreters for the Deaf

8630 Fenton Street, Suite 324

Silver Spring, Maryland 20910-3919

Voice: 301-608-0050

TTY: 301-608-0050

FAX: 301-608-0508

Email: admin@rid.org

Self Help for Hard of Hearing People, Inc.

7910 Woodmont Avenue, Suite 1200

Bethesda, Maryland 20814

Voice: 301-657-2248

TTY: 301-657-2249

FAX: 301-913-9413

Email: national@shhh.org